

REMARKS

CLAIM REJECTIONS - 35 USC § 102

On page 3 of the Office Action, the Examiner rejected claims 18-21 and 27-29 as being anticipated by U.S. Pat. No. 6,181,255 to Crimmins et al. ("Crimmins") under 35 U.S.C. 102(b).

Independent Claim 18 recites a method comprising, among other elements, "conducting a feedback-based process for determining a frequency for remotely actuating the device by transmitting new RF control signals to the device and waiting for user feedback indicating a successful actuation, wherein the new RF control signal transmissions are sequential and are sequenced such that the commonly used frequencies of the determined plurality of possible RF frequencies are interspersed with less commonly used frequencies."

Independent Claim 29 recites a method comprising, among other elements, "conducting a feedback-based process for determining the frequency by transmitting new RF control signals having the control code, wherein the new RF control signal transmissions are sequential and are sequenced such that the commonly used frequencies of the selected RF frequencies are interspersed with less commonly used frequencies."

Cimmins does not disclose, teach or suggest the methods of amended independent claims 18 or 29. Crimmins discloses a feedback-based process (*see* Figs. 6C and 6D), but does not disclose interspersing popular or common frequencies with less commonly used frequencies during such a feedback-based process. Applicants respectfully submit that such interspersion can result in faster learning for users with old or uncommon receiving devices without resulting in unacceptable delays for most users. Neither this advantage nor the solution of amended independent Claims 18 and 29 are disclosed by Crimmins.

On Page 2 of the Office Action, the Examiner provided the following remarks responsive to the Applicants' previous arguments:

Applicant argues that the prior art of record fail to teach or suggest configuring the Page 2 control circuit to cause the transmission to be sequenced such that commonly used frequencies of the plurality of possible frequencies are interspersed with less commonly used frequency. It is the examiner's position that the reference Crimmins

et al. teaches transmitting the new control code determined based on the device type at various frequencies in a sequential manner and the use of a feedback based processor in order to determine the frequency associated with the control code (col. 12 line 64-col. 13 line 65). Crimmins et al. teaches selecting likely frequencies for the retransmission of the control code (col. 13 lines 14-16) and the examiners considers likely frequencies commonly and less commonly used frequencies. The examiner considers the configuration of the control circuit as claimed in claims 1-17, and 25-26 as an intended use limitation and a functional description of the claimed limitation. The recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The prior art of Crimmins et al. and Dykema et al. has the capability of providing the same function as the claimed invention and is therefore not patentable distinct. See MPEP 2114 and Ex parte Masham, 2 USPQ2d 1647 (BD. Pat. App. & Inter. 1987).

The Examiner's reliance on MPEP § 2114 and Ex Parte Masham in this matter is improper. First, MPEP § 2114 and Ex Parte Masham only relate to apparatus and article claims, and are in no way relevant to the various method claims of the present application. Second, it is improper for the Examiner to consider differing control circuit configurations as not resulting in patentable structural differences. When a circuit is programmed to provide a new function, such programming creates a new machine structure. See In re Alappat, 33 F.3d 1526, 1545 (Fed. Cir. 1994) ("We have held that such programming creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software."), citing In re Freeman, 573 F.2d 1237, 1247 n. 11, 197 USPQ 464, 472 n. 11 (CCPA 1978); In re Noll, 545 F.2d 141, 148, 191 USPQ 721, 726 (CCPA 1976); In re Prater, 415 F.2d at 1403 n. 29, 162 USPQ at 549-50 n. 29. See also In re Nuijten 500 F.3d 1346, 1357 (Fed. Cir. 2007) ("In Alappat, we decided the question of determining whether a machine, including a number of digital electronic circuits that performed mathematical operations on electrical signals (a function we deemed 'true of all digital electrical circuits') was an 'abstract idea' because the function performed by the machine was, in essence, a mathematical algorithm. ... We concluded that the combination of digital electronic

circuits was 'not a disembodied mathematical concept which may be characterized as an 'abstract idea,' but rather a *specific machine* to produce a useful, concrete, and tangible result.'").

The prior art of Crimmins and Dykema does not have the capability of providing the same function as the claimed invention because the circuits of Crimmins and Dykema are not configured or programmed to provide such a function. As explained in MPEP § 2114, Ex Parte Masham related to two mixers which were structurally the same, but were merely submerged to different extents. Therefore, the only difference was in the intended use. The functional language in Masham regarding depth did not import structural limitations on the claim.

Here, the Examiner has provided no evidence that the control circuits of Crimmins and Dykema are configured to cause "transmissions to be sequential and to be sequenced such that commonly used frequencies of the plurality of possible frequencies are interspersed with less commonly used frequencies" (as recited in claim 1). Furthermore, the Examiner's remarks indicate that the Examiner understands that the prior art does not provide such a teaching.

Applicants respectfully submit that it is improper for the Examiner to read only the control circuit limitations that the Examiner has been unable to find in the prior art out of the claimed invention. The language of the claims should be given patentable weight and considered relative to the prior art. If the prior art does not support an articulated anticipation or obviousness conclusion, the claims should be allowed.

To anticipate a claim, the reference must teach every element of the claim. See MPEP § 2131, *citing* Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, the identical invention must be shown in as complete detail as is contained in the claim. See MPEP § 2131, *citing* Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989). The Examiner has failed to allege or show that the identical invention is shown in as complete detail as is contained in the claim. The Examiner has not presented a *prima facie* case of anticipation. Applicants respectfully request that the rejections under 35 U.S.C. § 102 be withdrawn.

Finally, without agreeing to the Examiner's comments, the Applicants have amended the apparatus claims of the present invention to yet more clearly claim the recited functions as structural limitations of the configuration of the claimed control circuits.

Applicants respectfully submit that the rejections of Claims 18 and 29 based on Crimmins are improper and that Claims 18 and 29 are patentable. The claims which variously depend from independent Claims 18 and 29 are also patentable. *See* 35 U.S.C. § 112 ¶ 4. Applicants respectfully request that the rejections of Claims 18-21 and 27-29 be withdrawn.

CLAIM REJECTIONS - 35 USC § 103

On page 4 of the Office Action, the Examiner rejected claims 1-6, 9-14, 16-17, and 25-26 as being unpatentable over U.S. Pat. No. 5,854,593 to Dykema et al. ("Dykema") in view of Crimmins under 35 U.S.C. 103(a).

Dykema et al. is silent on teaching the receiver is a wideband receiver and the control circuit determine a device type associated with the RF control signal without first determining the frequency of transmission of the received RF control signal. Crimmins et al. teaches the use of a wideband receiver in order to receive frequency over a wide frequency range (col. 9 lines 43-45). Crimmins et al. also teaches the control circuit determined the device type associated with the received RF control signal without first determining the frequency of the received control signal (col. 12 lines 9-24) and teaches the control circuitry determines and store a frequency for transmissions of the modulated RF modulated signal from the trainable transceiver based on the determined device type (col. 12 lines 41-53). Crimmins et al. further teaches analyzing the modulation of the RF control to determine the device type associated with the remote control transmitter (col. 10 lines 45-61). Crimmins et al also teaches the control circuit causes the transmission to be sequential and the control circuit uses the sequential transmission in the feedback based process for determining whether a transmission has been successfully received by the device for remote actuation (col. 12 line 64-col. 13 line 65)..

It would have been obvious to one of ordinary skill in the art to modify the system of Dykema et al. to include a wideband receiver as disclosed by Crimmins et al. because this allows the transceiver

to learn control codes that utilizes a wide range of frequencies and allows the single transceiver to control multiple devices of different manufacturer and determining the device type without first determining the frequency represents an alternative means of determining device type.

Independent Claim 1 has been amended to recite a trainable transceiver comprising, among other elements, a “control circuit ... configured to cause the transmissions to be sequential and to be **sequenced such that commonly used frequencies of the plurality of possible frequencies are interspersed with less commonly used frequencies**” (emphasis added).

Independent Claim 10 has been amended to recite a trainable transceiver comprising, among other elements, a “control circuit ... configured to cause the transmissions to be sequential and to be **sequenced such that the commonly used frequencies of the plurality of possible RF frequencies are interspersed with less commonly used frequencies**” (emphasis added).

As an initial matter, Applicants respectfully point out that the Examiner’s § 103 rejections fails to address the language emphasized above in any way. Accordingly, the Examiner has failed to present a *prima facie* case of obviousness. The Examiner’s reasoning with respect to the § 103 rejections (which does not even mention the claim language emphasized above) clearly does not fully articulate the Examiner’s conclusion of non-obviousness. *See KSR Int’l v. Teleflex*, 127 S. Ct. 1727, 1741 (2007).

Neither Dykema nor Crimmins discloses, teaches or suggests interspersing common frequencies with less common frequencies in a feedback process of a trainable transceiver. Dykema discloses a system whereby a tunable antenna is used to scan a plurality of frequencies to find the proper frequency for transmission. *See Dykema* at col. 19. Crimmins discloses a feedback-based process (*see* Figs. 6C and 6D), but does not disclose interspersing popular or common frequencies with less commonly used frequencies during such a feedback-based process. As explained above, such interspersion can result in faster learning for users with old or

uncommon receiving devices. The combination of Dykema and Crimmins does not disclose, teach or suggest the trainable transceivers of Claims 1 or 10. Applicants respectfully submit that the rejections of Claims 1 and 10 have been overcome and that Claims 1 and 10 are patentable. The claims which variously depend from independent Claims 1 and 10 are also patentable. *See* 35 U.S.C. § 112 ¶ 4. Applicants respectfully request that the rejections of 1-6, 9-14, 16-17, 22 and 25-26 be withdrawn.

On page 7 of the Office Action, the Examiner rejected claims 7 and 15 as being unpatentable over Dykema in view of Crimmins and further in view of U.S. Pat. No. 6,556,813 to Tsui (“Tsui”) under 35 U.S.C. 103(a). On page 8 of the Office Action, the Examiner rejected claim 23 as being unpatentable over Crimmins in view of Tsui under 35 U.S.C. 103(a).

Tsui does not cure the deficiencies noted above with respect to Crimmins and/or Dykema. Particularly, Tsui does not disclose interspersing popular or common frequencies with less commonly used frequencies during such a feedback-based process.

On page 7 of the Office Action, the Examiner rejected claim 22 as being unpatentable over Crimmins in view of Dykema under 35 U.S.C. 103(a).

As acknowledged by the Examiner, Dykema does not disclose, teach or suggest the elements missing from Crimmins. Therefore, Applicants respectfully submit that Claim 22 is patentable over any proper combination of Crimmins and Dykema for at least the reason that it depends from patentable independent Claim 18.

* * *

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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